|  |  |  |
| --- | --- | --- |
| Geometry  Unit 9 Review 2015 |  | **Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Period:\_\_\_\_\_\_\_\_** |

**Show all work for full credit!**

|  |  |  |
| --- | --- | --- |
| 1. Area = 310 cm2, Find the **exact** base. | | 2. Area = 38 cm2, Find the **exact** height. |
| 3. Given that  and .  Find the **exact** arc length and the area of a sector.  (answer in terms of) | | 4. The Area of a circle is . Find the **exact** **diameter** of the circle. |
| 5. Find the **exact**  radius of the circle with the area sector in2. | 6. Find the **exact** area of the shaded region. | |
| 7a. Find the **exact** area of the shaded region. | 7b. Find the **exact** area of the shaded region. | |
|  | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Solve for the **exact value** of and  in the following special right triangles. | | | | | | | |
|  | a. |  | b. |  | c. |  |
|  |  | = \_\_\_\_\_\_\_\_\_\_  = \_\_\_\_\_\_\_\_\_\_ |  | = \_\_\_\_\_\_\_\_\_\_  = \_\_\_\_\_\_\_\_\_\_ |  | = \_\_\_\_\_\_\_\_\_\_  = \_\_\_\_\_\_\_\_\_\_ |
|  | d. |  | e. |  | f. |  |
|  |  | = \_\_\_\_\_\_\_\_\_\_  = \_\_\_\_\_\_\_\_\_\_ |  | = \_\_\_\_\_\_\_\_\_\_  = \_\_\_\_\_\_\_\_\_\_ |  | = \_\_\_\_\_\_\_\_\_\_  = \_\_\_\_\_\_\_\_\_\_ |
| 1. Use the Pythagorean Theorem to find the **exact** lengths of the missing sides.   22 cm  p  41 cm | | | | | | | |
|  | a.  14 ft  6 ft  x |  |  | b. |  |  |
| 10. Sean and Shelly leave at a same intersection of I-90 and I-5 at 10:00 am. Sean travels I-90 east at 55 mph and Shelly travels I-5 south at 62 mph and both stop at 12:30 pm at gas stations. How far away is Sean from Shelly at 12:30 pm? **Sketch** the problem, and **round to the nearest mile**. | | | | | | |

11. Simplify the following radicals. DO NOT ROUND.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

12. Area of the circumscribed triangle = 192hm2

Find the **exact** radius of the inscribed circle.



radius = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| 13. a. Find the **exact** area.    Area=\_\_\_\_\_\_\_\_\_\_\_\_\_ | b. Find the **exact** area.    Area=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
| c. Find the **exact** area.  10 nm  Area= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | |